From: Jay Lund
Sent: Saturday, November 29, 2003 4:34 PM
To:
Subject: RE: Environmental Water Use "Efficiency"

Nick, et al,
My original proposal on Environmental Water Use Efficiency was in no way intended to begin a micro-management or micro-accounting of environmental water efficiency or effectiveness, which would now be terribly counter-productive. I agree that the state of the art is not nearly to this point – and the initial wording makes such a point. Beyond complexity, perhaps a more permanent barrier to serious micro-accounting is super variability among ecosystems in different streams (unlike more uniform household and farm water uses).

Environmental water use efficiency already is a current water management strategy; we just don't mention it in the current B160 draft. California environment and water managers commonly employ environmental water use efficiency actions, such as fish screens, fish ladders, channel morphology changes, etc. Many Category III actions seem to fall well into this strategy. There are numerous cases where local fisheries and water managers have found such actions, accompanied by sufficient dedications of water, to be as or more effective than dedications of greater amounts of water. Recognizing and enhancing this class of beneficial actions is the intent of my proposal.

Among the recommendations that could be made under this strategy would be 1) to encourage use of environmental water use efficiency actions where they would benefit local environmental uses and other water users, 2) to dedicate additional research activity to the development of such efficiency techniques and technologies, and 3) to dedicate funding to demonstration projects for environmental water use efficiency. Improvements in fish monitoring for adaptive management would also fall in this category, since it allows more environmental performance, with the same or lesser amounts of water.

Just as some water users have been willing to pay for increasing agricultural water use efficiencies in some cases, the identification of environmental water use efficiency actions could be a means to provide financial and political support for additional environmental performance, as defined by the environmental community (not by some overly-ambitious accounting scheme). In the next week or so we'll have a thesis completed on the potential environmental benefits of water operation efficiency improvements for the Hetch Hetchy system.

Jay Lund

P.S., I also agree with the distinction made between consumptive and non-consumptive uses of water and their importance in efficiency accounting. I wish more urban and agricultural efficiency calculations would make such distinctions. Many environmental uses are non-consumptive, but some are more consumptive.

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